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ABSTRACT

The effect of demographic trends on Connecticut college enrollments from 1983 to 2000 is assessed. Attention is directed to the following: changes in the age distribution of Connecticut's population--1980 to 2000; statewide undergraduate enrollment projections to 2000; enrollment projections by enrollment status and full-time-equivalent enrollment; undergraduate enrollment as a proportion of the Connecticut population, by age and gender for 1980-1983; comparison to projected and actual undergraduate enrollment, 1981-1985; trends in graduate and first-professional enrollment; and enrollment by type of institution. Current and projected enrollment data are presented for the University of Connecticut, Connecticut State University, and by types of institutions (e.g., regional community colleges, private colleges). Projections include the following: from the mid-1980s and throughout most of the 1990s, the number of 18-24-year-olds will decline in Connecticut; the number in the 25-34 year age group will grow during the 1980s but will decline during most of the 1990s; the size of the population above 35 years will grow during both decades; the period of greatest vulnerability to enrollment decline will be between 1990 and 1995; and full-time undergraduate enrollment is projected to decline throughout most of the period. (SW)

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Report

R-2-84
April 1984

Board of Governors for Higher Education
Department of Higher Education
State of Connecticut

DEMOGRAPHIC CHANGES AND THEIR IMPACT ON ENROLLMENT IN CONNECTICUT HIGHER EDUCATION: 1983 TO 2000

HIGHLIGHTS

- From the mid-1980s and throughout most of the 1990s, the number of 18-24 year olds (the traditional-age student) will decline in Connecticut. The number in the 25-34 year age group will grow during the 1980s but decline during most of the 1990s. The size of the older population (above 35) will grow during both decades (page 3).

- If participation rates remain as in fall 1983 and postbaccalaureate enrollment remains stable, Connecticut Full-Time Equivalent (FTE) enrollment is projected to increase by about one percent to 1985, and then decline by five percent to 1990, 13 percent to 1995 and 16 percent to 2000 (page 9).

- There are two striking features to these enrollment prospects:

  - the decline is likely to be gradual, averaging about one percent per annum; and

  - the decline is likely to be long, continuing beyond 1995.

- The period of greatest vulnerability to enrollment decline is between 1990 and 1995 when FTE undergraduate enrollments are projected to drop by 10.5 percent, or by about two percent a year (page 4).

- Full-time undergraduate enrollment is projected to decline throughout most of the period. Part-time enrollment will increase through the 1980s but will begin to drop in the 1990s, reflecting the underlying changes in the age structure of the population (page 5).

- Enrollment declines will not be even across types of institutions, or even within similar groups of institutions (pages 10-13).

- The more selective institutions (in Connecticut these are the four-year national institutions[1] followed by Fairfield University and the University of Connecticut) are likely to be able to moderate and, in some cases, to overcome projected declines by enrolling a larger share of the shrinking pool of students (page 13).

- The regional community colleges also are less vulnerable to significant declines because these institutions enroll a larger proportion of those over 25, whose numbers are increasing during the 1980s. Modest declines are projected for the 1990s, however, since the number of 25-34 year olds also will decline during that decade (pages 13, 14).

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INTRODUCTION

In 1981, the Board of Higher Education (the predecessor to the Board of Governors for Higher Education) published undergraduate enrollment projections for Connecticut public and independent higher education for 1985 and 1990.[2] The model used an age-specific participation rate for full-time and part-time students based on Connecticut population figures that had been projected from 1970 Census data. The major assumption of the model was that students of the same age would continue to participate in Connecticut higher education at the same rates as did students in those age groups in fall 1980. The model did not include non-demographic factors that may influence participation rates over time — for example, changes in attitudes towards higher education in general, and Connecticut higher education in particular, economic conditions, or student preparedness for higher education.

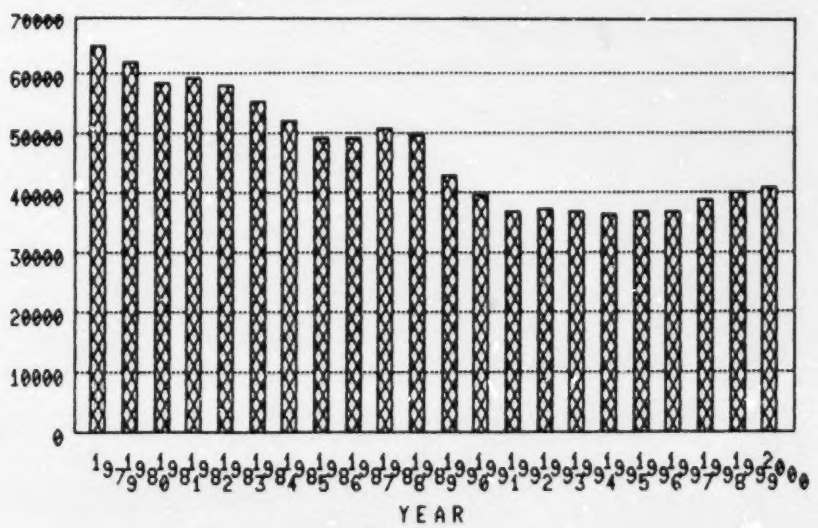
During the summer of 1983, population projections by age for Connecticut, adjusted for 1980 Census data, became available (Office of Policy and Management, June 1983).[3] These data allowed the Department of Higher Education to update its college enrollment model, and extend projections to the year 2000. In addition, the Department had three additional years of enrollment data, and was able to formulate projections using fall 1983 enrollment as a benchmark. The model also was refined to take account of different participation rates by gender.

1. CHANGES IN THE AGE DISTRIBUTION OF CONNECTICUT'S POPULATION: 1980 TO 2000

The number of 18 year-olds in Connecticut peaked in 1979 and will decline by 44 percent by 1995. Figure 1 shows the changing size of this age group. Of particular interest is the fact that the number of 18 year-olds in 2000 still will be well below the peak year of 1979. The recovery will be slow after 1995.

FIGURE 1

NUMBER OF 18 YEAR-OLDS IN CONNECTICUT POPULATION, 1979 TO 2000[4]

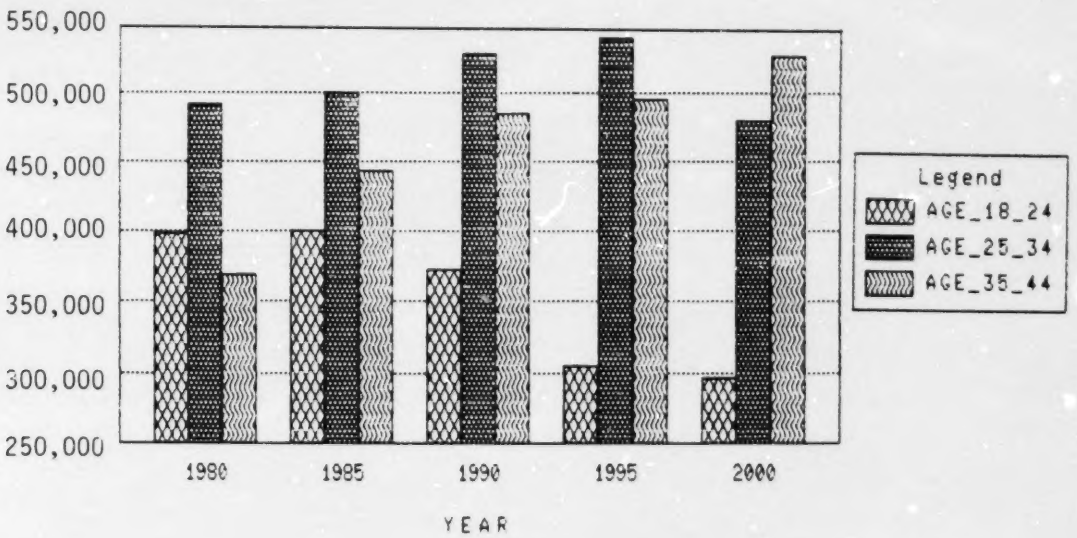


Higher education, however, is not dependent solely upon 18 year-olds for its student body. It is perhaps more useful to look at population changes for those in the 18-24 year-old category, the traditional-age students, and those older than 24. Figure 2 shows the change that will occur in the size of three groups:

- 18-24 year-olds, the traditional-age students who are most likely to attend college full time.
- 25-34 year-olds, a group who attend on a part-time basis at significant rates.
- 35-44 year-olds, a group who attend at lower rates.

FIGURE 2

CHANGING AGE DISTRIBUTION OF CONNECTICUT POPULATION



It can be seen that the number of 18-24 year-olds declines from the mid-1980s through the 1990s. The size of this group will bottom out in 1998 and then begin to grow slowly. The number of people in the 25-34 year old category will grow through the 1980s and early 1990s as the baby-boom ages and then begins to decline. Thus in the 1990s the decline in the number of 18-24 year-olds will be coupled with a decline in the number of 25-34 year-olds, leading to a continuing projected decrease in higher education enrollment. The older age group of 35-44 year-olds, and those beyond this age, will grow in the 1990s. Participation rates for these older groups, however, are low and the growth of the population over 35 years of age will have less impact on higher education enrollments.

II. STATEWIDE UNDERGRADUATE ENROLLMENT PROJECTIONS

Table I presents statewide projected undergraduate enrollment in Connecticut colleges and universities if participation rates in Connecticut higher education by age and gender remain the same as in fall 1983. (The U.S. Coast Guard Academy, a federal institution, has been excluded from the analysis throughout the report.)

TABLE I

UNDERGRADUATE ENROLLMENT PROJECTIONS FOR CONNECTICUT HIGHER EDUCATION: TO 2000

	ACTUAL 1970	ACTUAL 1980	ACTUAL 1983	PROJECTED 1985	PROJECTED 1990	PROJECTED 1995	PROJECTED 2000
Full Time	73,850	76,081	75,184	75,619	68,648	59,953	57,742
Part Time	27,918	52,476	57,017	58,274	59,523	57,714	55,461
Total Headcount	101,768	128,557	132,201	133,893	128,171	117,667	113,203
FTE	83,063	93,084	93,635	94,488	88,003	78,782	75,834
Percent Change in FTE from 1983				+ 1%	- 6%	-16%	-19%
Percent Change in FTE from 1980			+.06%	+1.5%	- 5%	-15%	-18%
1980 Projection: Percent Change in FTE from 1980				- 3%	-11%		

Using 1983 as the base year, a one percent increase in FTE enrollment is projected to 1985, followed by an FTE decline of six percent by 1990, 16 percent by 1995 and 19 percent by the year 2000. Headcount decline is somewhat smaller (14% by 2000). The period of greatest vulnerability to a decline in enrollments is between 1990 and 1995, when FTE enrollments are projected to drop 10.5 percent, or about two percent a year. The slow decline continues beyond 1995, however, with an additional FTE drop of 3.7 percent to the year 2000.

These results are more optimistic than the 1980 projections, where FTE undergraduate enrollment was projected to fall about three percent from 1980 to 1985, with an 11 percent drop from 1980 to 1990. The differences between the 1980 and 1983 projections result from the use of more current population projections and student data. The model also was refined to take into account different participation rates by gender.

There are two particularly striking features to these current enrollment prospects. First, the decline is likely to be gradual, about one percent per annum on the average. Second, the decline is likely to be long, continuing beyond 1995.

Figure 3 illustrates projected enrollment by FTE, and full-time and part-time status. Full-time enrollment is projected to decline after 1985, while part-time enrollment will increase through the 1980s but will begin to drop in the 1990s, reflecting the underlying changes in the age distribution of the population.

FIGURE 3

UNDERGRADUATE ENROLLMENT PROJECTIONS FOR
CONNECTICUT HIGHER EDUCATION
BY ENROLLMENT STATUS AND FTE ENROLLMENT

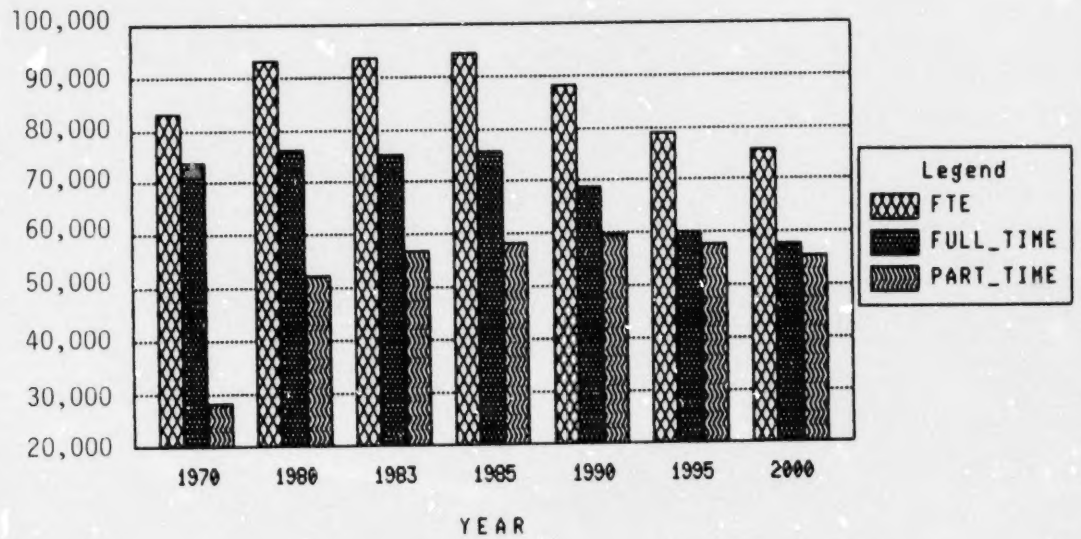


Table 2 shows how these enrollment projections will translate into enrollments by age and attendance status in Connecticut higher education, if participation rates remain as they were in 1983.

TABLE 2

AGE DISTRIBUTION OF UNDERGRADUATES IN
CONNECTICUT HIGHER EDUCATION
1983 AND PROJECTED 1985, 1990, 1995 AND 2000

	1983	1985	1990	1995	2000
Full Time					
24 and Under	68,663	68,980	61,489	52,760	51,165
25 and Older	6,521	6,639	7,159	7,193	6,577
% over 24	8.7%	8.8%	10.5%	12.0%	11.4%
Part Time					
24 and Under	19,811	20,140	18,633	15,641	14,615
25 and Older	37,206	38,134	40,890	42,073	40,846
% over 24	65.3%	65.4%	68.7%	72.9%	73.6%
Total					
24 and Under	88,474	89,119	80,123	68,400	65,780
25 and Older	43,727	44,774	48,049	49,268	47,423
% over 24	33.1%	33.4%	37.5%	41.9%	41.9%

Up to 1995, enrollment of those 24 and under will decline while enrollment of those over 24 will increase. From 1995 to 2000, however, there will be some additional decline in the numbers of students 24 and under, and enrollment of those over 24 also will begin to decline.

The proportion of students over 24 years of age will increase, from the current 33.1 percent in 1983 to 41.9 percent in 1995. By 1995, about 12 percent of full-time undergraduates will be of non-traditional age, compared to about 73 percent of part-time undergraduates.

Assumptions of the Undergraduate Projection Model

The undergraduate enrollment projections presented so far have been based on an age/participation model that assumes that individuals of the same age and gender will choose to participate in Connecticut higher education at the same rates as did individuals in that age and gender category in 1983.[5,6] With several years' data now available, it is possible to test the reasonableness of this assumption. Table 3 shows participation rates for Connecticut undergraduates from 1980 to 1983.

TABLE 3

UNDERGRADUATE ENROLLMENT IN CONNECTICUT HIGHER EDUCATION
AS A PROPORTION OF THE CONNECTICUT POPULATION,
BY AGE AND GENDER 1980-1983

	MEN				WOMEN			
Age	1980	1981	1982	1983	1980	1981	1982	1983
Full Time								
15-19	10.2%	10.5%	10.6%	11.0%	12.1%	12.6%	12.9%	13.3%
20-24	13.6%	13.5%	13.0%	12.3%	12.8%	12.7%	12.3%	12.0%
25-29	1.8%	1.6%	1.6%	1.6%	1.5%	1.4%	1.2%	1.2%
30-34	0.7%	0.5%	0.5%	0.5%	0.8%	0.8%	0.7%	0.6%
35-44	0.2%	0.2%	0.2%	0.15%	0.6%	0.5%	0.4%	0.4%
45-59	0.06%	0.04%	0.03%	0.03%	0.1%	0.1%	0.1%	0.09%
60+	0.02%	0.01%	0.02%	0.01%	0.02%	0.02%	0.01%	0.01%
Part Time								
15-19	1.3%	1.1%	1.4%	1.3%	2.1%	1.8%	2.1%	2.0%
20-24	4.8%	4.5%	4.4%	4.8%	5.8%	5.4%	5.4%	5.9%
25-29	4.5%	4.7%	4.7%	4.6%	4.8%	5.1%	5.0%	5.0%
30-34	2.9%	3.4%	3.1%	3.0%	3.7%	4.2%	4.0%	3.9%
35-44	1.7&	1.8%	1.8%	1.7%	2.8%	3.4%	3.5%	3.3%
45-59	0.4%	0.5%	0.5%	0.5%	1.0%	1.1%	1.1%	1.2%
60+	0.2%	0.2%	0.3%	0.3%	0.3%	0.4%	0.4%	0.4%

While it appears that participation rates for 15-19 year olds enrolling on a full-time basis are increasing, those for 20-24 year olds, also in the traditional age group, may be declining. Enrollment rates for older students (+25) also have declined very slightly over the period. Thus the general assumption of stable participation rates may overestimate future enrollment of older students and underestimate that of those in the youngest age group.

Table 4 presents some factors that could be influencing participation rates over time. The list is not intended to be exhaustive but to illustrate some of the complex social and economic variables that are not accounted for directly in the model.

TABLE 4

FACTORS THAT COULD INFLUENCE PARTICIPATION RATES IN CONNECTICUT HIGHER EDUCATION

PARTICIPATION RATES UP	PARTICIPATION RATES DOWN
* Better high school preparation	* Increasing provision of in-house education by business and industry
* Better retention of students	* Decreasing unemployment
* Intensified recruitment by Connecticut institutions	* Less financial aid available
* Increasing need for career retraining	* Changing occupational structure: more service jobs requiring less education
* Changing occupational structure: more technical jobs requiring more education	

Those factors influencing the participation rates of traditional-age (18-24) students will have the greatest impact on future enrollments. While it is not possible to measure the potential or extent of their effects, factors that may increase or decrease participation rates will often operate concurrently, so that the overall deviation from current rates may be modest.

Two factors, however, could cause particularly large changes in these participation rates, and thus significantly influence future enrollments.

Changes in Migration Rates of Connecticut High School Graduates: Connecticut historically has had a high out-migration of high school graduates enrolling in institutions of higher education. The state ranks fourth nationally as a net exporter of freshmen, an historical trend that emerged as far back as 1958 when data were first collected. Recent studies suggest that these out-migration rates are related at least in part to high scholastic performance, which in turn is related to the high socioeconomic status of Connecticut residents generally (Connecticut ranks second in per capita income nationally) and parental education.

In the late 1970s, the out-migration rate for Connecticut high school graduates continuing into higher education increased (47.8% in 1978 to 50.5% in 1980). This rate dropped back to 49.5 percent in 1981 and 48.1 percent in 1982. This trend is reflected in the increasing participation rates for 15-19 year-olds shown in Table 3.

If the out-migration rate were to fall to 45 percent by 1990, an additional 614 freshmen would enroll that year in Connecticut higher education with perhaps another 600 students beyong the freshman year. The statewide undergraduate enrollment decline from 1983 would be about four percent compared to six percent without the reduction. If the out-migration rate were to fall to 40 percent by 1990, the projected statewide undergraduate enrollment decline would be about three percent from 1983. Thus a continuing shift toward in-state enrollment could compensate significantly for the declining number of 18 year-olds in the Connecticut population.

Broadening Base of Higher Education Constituents. Another significant variable in the long-term prospects for enrollment is the cultivation of new constituent groups. Fifteen years ago, it would have been difficult to foresee the extent to which women would increase their participation in higher education, or the growth in non-degree activity, especially at the regional community colleges. Changing relationships between business and industry and higher education could result in equally challenging changes during the 1980s and 1990s. Major structural changes could have a significant impact on future enrollments.

Despite the limitations outlined above, the projections model appears to be working quite well. The model was tested by using 1981 and 1982 data. The results overestimate the next year's actual enrollment very slightly (Table 5). The long range projections presented in this report therefore may overestimate marginally actual future enrollment.

TABLE 5

COMPARISON OF PROJECTED AND ACTUAL
UNDERGRADUATE ENROLLMENT, 1981-1985

	1981	1982	1983	1984	1985
			UNDERGRADUATE HEADCOUNT		
Actual Enrollment	131,237	131,485	132,201		
Projected by 1981 Model		132,151 (+0.5%)	133,065 (+0.6%)	133,979	134,895
Projected by 1982 Model			132,367 (+0.1%)	133,249	134,133
Projected by 1983 Model				133,046	133,893
			UNDERGRADUATE FTE		
Actual Enrollment	93,255	93,637	93,635		
Projected by 1981 Model		93,744 (+0.1%)	94,233 (+0.6%)	94,721	95,211
Projected by 1982 Model			94,098 (+0.5%)	94,559	95,022
Projected by 1983 Model				94,061	94,488

III. POSTBACCALAUREATE ENROLLMENT

As noted in the 1981 study, enrollment at the graduate level historically has not been tightly related to demographic changes. Table 6 presents enrollment trends in Connecticut from 1976 to 1983 at the graduate and first-professional levels.

TABLE 6

TRENDS IN GRADUATE AND FIRST-PROFESSIONAL ENROLLMENT IN CONNECTICUT INSTITUTIONS OF HIGHER EDUCATION

	Graduate		First-Professional	
	Headcount	FTE	Headcount	FTE*
1976	26,231	N.A.	2,396	N.A.
1977	26,844	N.A.	2,543	N.A.
1978	26,991	N.A.	2,935	N.A.
1979	27,210	N.A.	2,998	N.A.
1980	27,565	13,465	3,027	3,075
1981	27,317	14,076	3,154	3,217
1982	26,785	13,198	3,278	3,382
1983	27,747	13,932	3,277	3,343

*FTE Enrollment exceeds headcount enrollment since many law students enroll for more than 12 units of study.

Postgraduate enrollment is not expected to increase or decrease significantly during the period, although shifts among programs may continue to influence the institutions in which students enroll. For projection purposes, a steady-state enrollment of 17,500 FTE students has been assumed.

IV. UNDERGRADUATE PLUS POSTBACCALAUREATE ENROLLMENT

Table 7 combines the undergraduate projections developed in Section II with those for postbaccalaureate enrollment. Graduate enrollment moderates slightly the decline in undergraduate enrollment. Total FTE enrollment is projected to decline about five percent by 1990, 13 percent by 1995 and 16 percent by 2000.

TABLE 7

FTE ENROLLMENT PROJECTIONS TO 2000 FOR CONNECTICUT HIGHER EDUCATION

	Actual 1983	Projected 1985	Projected 1990	Projected 1995	Projected 2000
Undergraduate FTE	93,635	94,488	88,003	78,782	75,834
Postbaccalaureate FTE	17,275	17,500	17,500	17,500	17,500
Total FTE	110,910	111,988	105,503	96,282	93,334
Percent Change from 1983		+ 1%	- 5%	-13%	-16%

V. ENROLLMENT BY TYPE OF INSTITUTION

In previous sections of this report, an outlook for future enrollment was developed for the state as a whole. While these projections are most reliable at this high level of aggregation, they are susceptible to modification as participation rates change and as population estimates are revised. The enrollment projections methology becomes even less reliable when applied to particular types of institutions because it is harder to predict what types of institutions students will attend rather than whether they will enroll at all. Enrollment prospects for individual institutions and groups of similar institutions will be affected not only by the changing age distribution of the population, but by their ability to maintain or increase their share of a pool of participating students. For example, an institution with a low admittee/applicant ratio has more flexibility to increase its share of the student pool by admitting more applicants than does an institution which already admits most applicants.

If institutions were to retain their 1983 share of enrolled students by age and if participation rates were to remain constant, then enrollment by type of institution would be as shown in Table 8. Postbaccalaureate enrollment has been held constant at 1983 FTE levels. The regional community colleges would be least affected by demographic changes since these institutions serve a large proportion of older students. Even these institutions, however, will experience some decline in enrollment.

Changes in the Distribution of Undergraduate Students Among Types of Institutions.

The projections provided in Table 8 assume all types of institutions will be able to maintain their current share of the declining pool of undergraduate students by age. In fact this is unlikely to be the case. Individual institutions of higher education differ in many respects, allowing some to moderate or even overcome demographically related enrollment prospects.

Figure 4 illustrates the pattern of application overlap among New England institutions for traditional-age students.[7] The highly selective independent institutions compete for students among themselves both in-state and out-of-state as well as with less-selective independent institutions. The latter institutions not only compete among themselves (both in-state and out-of-state), and with the more selective independent institutions, but with public institutions both in-state and out-of-state. Public institutions compete among themselves, and with regional independent institutions (both in-state and out-of-state).

As the pool of traditional-age students declines, currently more selective institutions will be able to moderate or even overcome demographically-driven enrollment declines by admitting more qualified applicants, some of whom might previously have enrolled in a less-selective institution as a second choice.

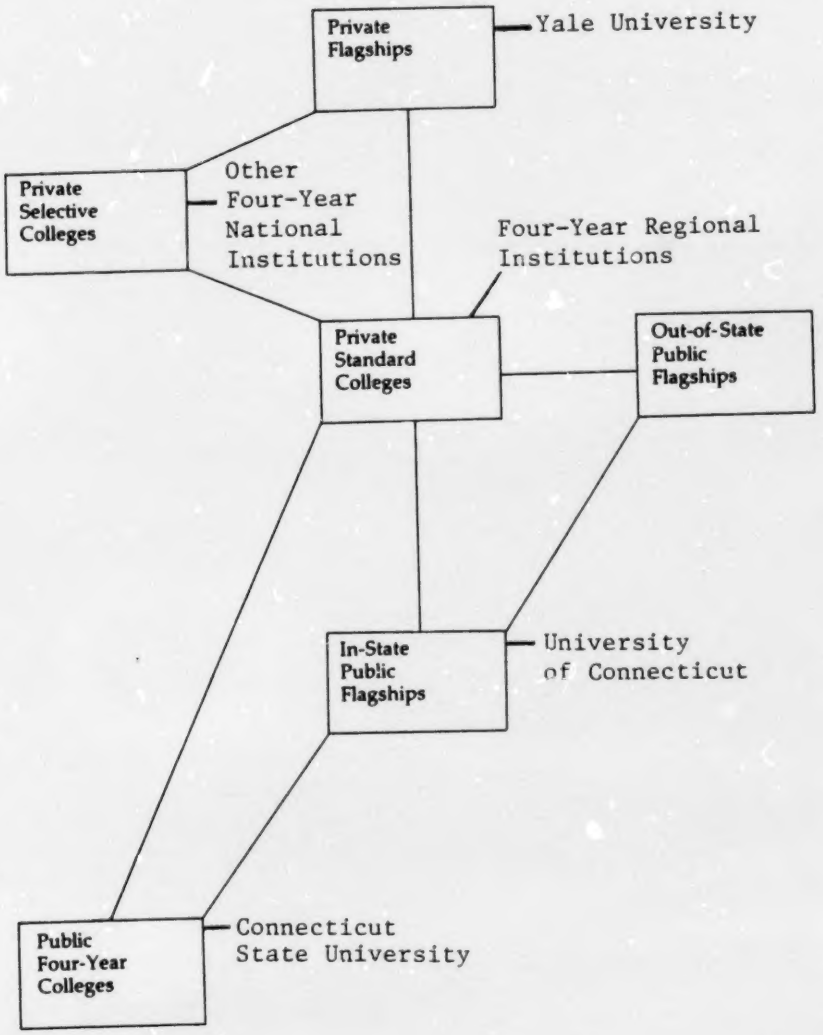
TABLE 8

CONNECTICUT CURRENT AND PROJECTED ENROLLMENT BY TYPE OF INSTITUTION, IF UNDERGRADUATE ENROLLMENT PATTERNS BY AGE REMAIN AS IN FALL 1983

	1983 Actual	1985	1990	1995	2000
UNIVERSITY OF CONNECTICUT, STORRS					
Undergraduate Headcount	12,497	12,535	11,343	9,856	9,509
Undergraduate FTE	12,329	12,374	11,166	9,686	9,352
Postbaccalaureate FTE	3,975	3,975	3,975	3,975	3,975
Total FTE	16,304	16,349	15,141	13,661	13,327
% Change from 1980	+ 2%	+ 2%	- 5%	-15%	-17%
% Change from 1983		-	- 7%	-16%	-18%
UNIVERSITY OF CONNECTICUT, REGIONAL CAMPUSES					
Undergraduate Headcount	3,702	3,738	3,544	3,212	3,088
Undergraduate FTE	2,587	2,605	2,407	2,134	2,056
% Change from 1980	+11%	+12%	+ 3%	- 8%	-12%
% Change from 1983		+ 1%	- 7%	-18%	-20%
CONNECTICUT STATE UNIVERSITY					
Undergraduate Headcount	27,158	27,461	25,976	23,572	22,651
Undergraduate FTE	21,093	21,267	19,707	17,549	16,868
Postbaccalaureate FTE	2,671	2,671	2,671	2,671	2,671
Total FTE	23,764	23,938	22,378	20,220	19,539
% Change from 1980	+ 1%	+ 2%	- 4%	-14%	-17%
% Change from 1983		+ 1%	- 6%	-15%	-18%
REGIONAL COMMUNITY COLLEGES					
Undergraduate Headcount	35,625	36,277	36,264	34,597	33,224
Undergraduate FTE	17,107	17,367	16,994	15,916	15,264
% Change from 1980	-	+ 1%	- 1%	- 7%	-11%
% Change from 1983		+ 2%	- 1%	- 7%	-11%
STATE TECHNICAL COLLEGES					
Undergraduate Headcount	8,853	8,949	8,784	8,242	7,919
Undergraduate FTE	5,674	5,689	5,407	4,931	4,737
% Change from 1980	+ 9%	+ 9%	+ 4%	- 6%	- 9%
% Change from 1983		-	- 5%	-13%	-16%
STATE INSTITUTIONS					
Undergraduate Headcount	87,835	88,976	85,928	79,497	76,407
Undergraduate FTE	58,792	59,302	55,681	50,216	48,277
Postbaccalaureate FTE	7,170	7,170	7,170	7,170	7,170
Total FTE	65,962	66,472	62,851	57,386	55,447
% Change from 1980	+ 2%	+ 3%	- 3%	-11%	-14%
% Change from 1983		+ 1%	- 5%	-13%	-16%
FOUR-YEAR NATIONAL					
Undergraduate Headcount	11,590	11,653	10,474	9,062	8,777
Undergraduate FTE	11,029	11,084	9,930	8,564	8,296
Postbaccalaureate FTE	4,953	4,953	4,953	4,953	4,953
Total FTE	15,982	16,037	14,883	13,517	13,249
% Change from 1980	+ 1%	+ 1%	- 6%	-15%	-16%
% Change from 1983		-	- 7%	-15%	-17%
FOUR-YEAR REGIONAL					
Undergraduate Headcount	31,162	31,553	30,176	27,687	26,646
Undergraduate FTE	22,505	22,701	21,087	18,834	18,137
Postbaccalaureate FTE	5,153	5,153	5,153	5,153	5,153
Total FTE	27,658	27,854	26,240	23,987	23,290
% Change from 1980	-	-	- 6%	-14%	-16%
% Change from 1983		+ 1%	- 5%	-13%	-16%
TWO-YEAR INDEPENDENT					
Undergraduate Headcount	1,614	1,631	1,518	1,356	1,308
Undergraduate FTE	1,308	1,318	1,199	1,049	1,014
% Change from 1980	-	+ 1%	- 8%	-19%	-22%
% Change from 1983		+ 1%	- 8%	-20%	-22%
INDEPENDENT INSTITUTIONS					
Undergraduate Headcount	44,366	44,848	42,180	38,119	36,743
Undergraduate FTE	34,842	35,103	32,216	28,447	27,447
Postbaccalaureate FTE	10,106	10,106	10,106	10,106	10,106
Total FTE	44,948	45,209	42,322	38,553	37,553
% Change from 1980	-	+ 1%	- 6%	-14%	-16%
% Change from 1983		+ 1%	- 6%	-14%	-16%

FIGURE 4

APPLICATION OVERLAP AMONG NEW ENGLAND FOUR-YEAR INSTITUTIONS BY INSTITUTIONAL TYPE



NOTE: Connecting lines indicate application overlap of 42 percent in either direction.

SOURCE: The Structure of College Choice. Robert Zemsky and Penney Oedel, College Board, New York, 1983; (page 71, figure 4.7, modified).

In Connecticut's independent sector, the four-year national institutions (and Fairfield University among the regional institutions) are the most selective, currently admitting less than half of all applicants, on the average. In addition these applicants and admittees have high SAT scores (about 1300 combined, on the average), and tend to be drawn from a wide geographic area. These institutions therefore may experience little or no enrollment decline despite the shrinking pool of students.

In the public sector, the University of Connecticut (Storrs) is the most selective, with average SAT scores around 1050 combined and an admission rate of about 65 percent. This institution is likely to be able to moderate some of the projected enrollment decline if a larger proportion of students are admitted and choose to enroll. The branches are more vulnerable to enrollment decline because they are somewhat less competitive (SAT scores average about 950 combined) and are almost completely dependent upon Connecticut as a source of students. In addition, students are frequently offered space at a regional campus when not admitted to Storrs even though they applied to the Storrs campus as a first choice. To the extent that competition for space at Storrs lessens as a result of the shrinking pool of college age students, more applicants may be able to be admitted directly to Storrs.

The four campuses of the Connecticut State University may lose some of their current share of the pool of undergraduate students over time to the state's research institution. To counterbalance this, however, these institutions may attract students from the independent sector to the extent that net costs become increasingly differentiated. In addition, the Connecticut State University may be a prominent beneficiary of any decline in the out-migration rate of Connecticut high school graduates, since finances are likely to contribute to such a change. Actual enrollments may be somewhat higher than those projected by the present model.

The regional independent institutions and two-year independent institutions are quite vulnerable to enrollment decline. Indeed, undergraduate FTE enrollment already has declined five percent for the group as a whole from its peak in 1981. It should be noted, however, that the institutions in the regional group have quite varied characteristics in terms of selectivity, age distribution of students and recruitment area. There will be considerable variation in enrollment prospects for individual institutions during the 1980s and 1990s.

The state technical colleges currently admit most qualified applicants although enrollment in some technologies cannot be assured. For this reason, losses may occur at the enrollment stage of recruitment. In addition, Greater New Haven State Technical College in continuing its development is likely to increase enrollment. Thus actual total enrollment may be somewhat higher into the future than is currently projected.

Enrollments at the regional community colleges are projected to remain quite stable through the 1980s, but will decline in the 1990s as the number of 25-34 year-olds in the Connecticut population also begins to decrease. If enrollment rates for older students actually are declining, then the community colleges may experience larger declines.

Table 9 summarizes the above discussion.

TABLE 9

SUMMARY OF ENROLLMENT PROSPECTS
FOR CONNECTICUT INSTITUTIONS OF HIGHER EDUCATION

Type of Institution	Projected Change in FTE Enrollment 1983-1990	Projected Change in FTE Enrollment 1983-2000	Possible Deviation from Projections
University of Connecticut, Storrs	- 7%	-18%	Less decline. Can admit more applicants.
University of Connecticut, Regional Campuses	- 7%	-20%	May experience larger decline, losing students to Storrs
Connecticut State University	- 6%	-18%	Less decline if high school graduate out-migration rates continue to decrease.
Regional Community Colleges	- 1%	-11%	Projections provide a likely prospect.
State Technical Colleges	- 5%	-16%	Slightly less decline due to one developing institution.
Four-Year National Independent	- 7%	-17%	Much smaller decline. Most selective institutions can maintain enrollments by admitting more qualified applicants.
Four-Year Regional Independent	- 5%	-16%	Mixed. More selective institutions will be able to moderate some enrollment decline. Less selective may have larger declines.
Two-Year Independent	- 8%	-22%	Projections provide a likely prospect.

CONCLUSION

The enrollment projections developed in this report provide an indicator of what the next fifteen years may be like for Connecticut higher education. Projections suggest a period of stability for some institutions and decline for others. It will be a time of reallocation rather than expansion. It need not be, however, a period of stagnation.

The projected enrollment declines, although significant, do not signal the decimation of Connecticut higher education. Institutions will continue to respond to the changing needs of an older student body, even more part-time students, and emerging employment demands. What is essential is that institutions take a realistic approach to the future, plan for fewer students where appropriate, and reallocate resources to ensure the continued vibrance and excellence of their academic programs. Adaptive strategies can be harmonized with a firm sense of institutional self-identity and leadership to maintain educational integrity during a challenging period in higher education's history.

FOOTNOTES

1. A four-year independent institution is defined as a "national" institution if more than 65 percent of its full-time undergraduates are from out-of-state and total enrollment exceeds 300 students. The remaining four-year independent institutions are defined as "regional" institutions.

2. Demographic Changes and Their Impact on Higher Education in Connecticut, R-4-81, September 1981.

3. The Connecticut State Office of Policy and Management (OPM) has developed five year age-specific population projections adjusted for 1980 Census counts (for methodology, see Population Projections for Connecticut Municipalities and Regions to the Year 2000. OPM, June 1983). These projections do not adjust for Connecticut's net out-migration of college age students. This has the effect of inflating the available college-age population pool in projected years. Thus, when participation rates (calculated in 1983) are applied, resulting projected enrollments will be inflated. OPM is currently developing a new and more sophisticated model for projecting Connecticut's population. Revised figures will be available during 1985. The Department of Higher Education (DHE) then will be able to revise its own enrollment projections.

4. Number of 18 year-olds in Connecticut Population

   The 1980 census shows the following age profile for Connecticut:

Age	Census Count	DHE Adjustment
15	58,080	
16	59,199	
17	58,411	
18	55,852	61,852
19	56,841	64,841

   It would appear from these data that the number of 18 year-olds would have peaked in 1982, when 16 year-olds reached 18. This, however, was not the case. The counts in the 18 and 19 year-old categories in 1980 are net of out-migration of college students, who were counted in the state of the institution they were attending in April 1980. Data shown in Figure 1 have been adjusted to compensate for this. The number of 18 year-olds in Connecticut actually peaked in 1979. No additional adjustments for net out- or in-migration or deaths in those under 19 years of age were made in Figure 1. Births in 1980, 1981 and 1982 (18 year-olds in 1998, 1999 and 2000) were 38,750, 39,999 and 40,515 respectively.

5. Participation Rates

OPM projections were available for five-year intervals. In order to calculate participation rates DHE extrapolated annual population projections from 1980 to 1985 using the following formula:

$$P_{ij} = P_{i1980} + \left[(P_{i1980} - P_{i1985})/5 \right] * K_j$$

where i = age/gender category (N=14)
j = Year (1981 to 1985)
k = 1 in 1981, 2 in 1982, 3 in 1983, 4 in 1984
P = population

$$P_j = \sum P_{ij}$$

6. Enrollment Projection Methodology

The model used was a simplified version of the one described in the 1981 report (see Appendix I, page 17 of that report for a detailed description). A single statewide model was developed rather than aggregating projections developed for each institution, as was done in 1981.

Two participation ratios were calculated for seven age groups (15-19, 20-24, 25-29, 30-34, 35-44, 45-59, 60+) for males and females separately, based on the number in each category enrolled on a full-time or part-time basis in fall 1983. Thus a total of 28 separate participation rates were calculated, 14 for full-time enrollment by age and gender, and 14 for part-time enrollment. These ratios were then applied to the projected population counts by age and gender for 1985, 1990, 1995 and 2000. The results were summed to produce total projected full-time and part-time enrollments. Full-time-equivalent enrollment was calculated by applying the average 1983 credit hour load for full-time students (14.859) to the projected number of full-time students and the average part-time credit hour load (5.039) to part-time projections. Separate averages were used when developing projections by type of institution.

The model is available as a Supercalc Spreadsheet using an I.B.M. PC micro-computer. Contact J. Presley for further information.

7. The Structure of College Choice. Robert Zemsky and Penney Oedel, College Entrance Examination Board, New York, 1983. (Data used were SAT score submissions. The analysis focused on New England institutions.)

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